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ORIGINAL AND SELECTED.

REMARKS ON THE CAUSE AND TREATMENT OF YELLOW FEVER AND THE BEDFORD (VA.) SPRINGS ALUM AND IRON MASS AS A REMEDIAL AGENT.

By W. A. Greene, M.D., Macon, Ga., Ex-President Georgia Medical Association; formerly chief Surg. of Artillery, 3d Army Corps, A. N. Va.

The great pestilence of 1878, which "walketh in darkness and destroyeth at noon" may be stated in round numbers to have extended over five hundred miles in length, on the Air-Line, and seventy miles across at its widest part, sparing neither city, town, village or hamlet, clinging to the eastern side of the Mississippi river—it greatest divergence being at Chattanooga; Mobile, Charleston, Savannah and Jacksonville, and other places subject to its visits being free to this time. It seems to prefer moving Northward along the rich malarial pastures of the vast lowlands that stretch out from the turbid Father of waters.

In contemplating this wide-spread epidemic, and the terrible destruction of human life, our minds linger—to think of and admire the heroism and dauntless courage of those noble volunteers and martyrs, who, while others have fled before the approach of the pestilence, have remained by the noisome couch, have breathed the foul breath, and inoculated themselves with the deadly secretions of disease, to mitigate the sufferings or save the lives of their fellow beings—and wrest from the grasp of the poison some salutary instruction.

For these two long, weary months, they have watched by the gray dawn, through the noontide heats, and all the live-long night, at the bed side of the sick, to catch the first ray of hope, to seize upon the first favourable moment in which to offer kindly aid and gain an advantage over the deadly monster.

Such entire and unreserved immolation of self, such devotion to the calls of duty —are but the repetitions of the acts and examples of thousands of our brethren, who have thus, like *Curtius* leaped into the gulf, and thrown away their own lives for their fellows; and in every age, and in every nation, are so numerous that their biographies would fill another Alexandrian Library. Like the *Prometheus* of the Greek Poet, they seem to struggle against Fate herself, and to traverse with unbending resolution the evil current of those who preceeded them to the same destiny. It is ours to stand ready to aid them with all our resources of study and investigation—that they may put limits to the sway of this dread king of terrors.

It is now too late to discuss clean streets and alleys, or correct sewerage or any system of hygenic measures—but rather, by experimental science and study of the true pathology of the disease, *seek to cure it. This is our only hope.* Our oft scourged Southern cities have already exhausted every resource, to prevent *its appearance,* until it seems no human foresight, or expenditure of time, talent or money will ever avail anything. And I regret to say, the frightful mortality in the present epidemic proves how unsuccessful and uncertain are our therapeutical means. We have in a measure mastered other diseases of nearly equal fatality as pulmonary consumption. Typhoid fever, small-pox, now a disease of the past. Rheumatism an oppobrium, now yields almost as certainly to modern treatment as the intermittents and remittents of malarial regions. In the present epidemic of yellow fever the oldest traditional theories have been demolished, and it seems to me that we are in greater ignorance of essential and specific knowledge than ever before.

Yellow fever looms up before the American people as a national peril and calamity, the Leviathen of our prosperity and the destroyer of the lives of our people, and invokes at once the serious attention of the government. It invades alike the palaces of the rich, and the hovels of the poor; in country as well as city; the inland cities and towns, as well as the great marts of trade, the water courses and thoroughfares of commerce—sparing neither age nor sex; the fœtus in utero, the babe at the breast, the youth, and the man alike are its victims. Neither is it a respector of nationalities, the hitherto exempted negro is almost equally affected with his "white brother." And it is a noticeable fact in the present epidemic, that previous attacks have proven less effective against a recurrence than ever before, as is evidenced from the numerous attacks and deaths among the physicians, druggists and nurses, who so nobly volunteered their services to the afflicted cities. Finally—although the flower and skiil of the profession, have, at the imminent peril of health and life labored most zealously, yet, no treatment has been able to reduce the average mortality below thirty-five per cent. of those attacked.

I do not propose, in this paper, to discuss the pathology of yellow fever, but give simply a brief synopsis of my opinion of its direct cause and treatment. I very much fear the space allotted in a medical journal will be insufficient to make myself understood, or convey the probable benefit I venture to hope for, from a publication of my theory.

Yellow fever is a specific malignant fever, usually of a continued type, and propagated by minute germs, and has appeared at elevations of 2,000, and even 4,000 feet above the level of the sea. No physician who has studied the investigations of *Yellow* and *Malarial* fever, made by men of ability—or themselves made the invstigations, but have been struck with the *identity* of the two diseases in material respects, and I hold that any general treatment adapted to one will be found valuable in the other.

The most recent investigations agree with all previous ones, that yellow fever prevails exclusively in malarial regions, and is produced by spores of fungi floatin the air, and in which often, especially

in mild types, remissions and intermissions of the fever are observable. Dr. LeHardy, of Savannah, who has given the subject perhaps more thought than any recent investigator, and fully competent, states that he has observed this (the remissions and intermissions) often among the negroes in the last Savannah epidemic, and in a majority of those cases quinine controlled the febrile symptoms. On this important point we have the valuable testimony of Dr. Robert Lawson, inspector general of hospitals, who has seen yellow fever on the West coast of Africa and in the West Indies, as well as the United States, and given special attention to the features which characterize it, and serve to distinguish it from other kinds of fever. He says, "the train of urinary symptoms and other characteristic features of yellow fever were as fairly developed in the periodical as in the continued form of the disease; the definition of yellow fever which represents it as being always of the continued form, is altogether erroneous."

While the yellow fever plant may not be identical with the malarial plant, (neither having been sufficiently isolated and explained); yet, the conditions for their development are strikingly similar, even to a casual observer. Neither are contageous by personal contact. Malarial fevers of more or less severe type invariably follow as a consequence, when there has been slight frosts, few freezes, unusual quantities of rain, saturating the earth and filling the ponds and low places, resulting in stagnant water and much decayed vegetable matter. These are the conditions which propagate yellow fever, and in which it luxuriates and delights to dwell, leaving wretchedness and death in its wake.

For these reasons and others, gathered from a residence and practice of ne rly thirty years in an intensely malarial region, with close observation and patient investigation of the diseases peculiar thereto, and an experience with yellow fever sufficient for practical purposes. I am forced to the conclusion that *it is the combined influence of the spores of the yellow fever and malarial plants, acting together, and upon each other, under favorable conditions for their mutual development,* which produce and propagate yellow fever. It will be noticed that the identical surroundings or conditions are always required for the germination, growth and development of yellow fever; and in closely studying and observing the types of different epidemics, I have noticed that it is controlled by the predominating presence of the one or the other cause, being milder if the *malarial* is in excess, and severer if the *yellow fever* has supremacy, and will yield to a lower degree of temperature or spread and be susceptible of more rapid multiplication when it is higher, for the same reasons.

And again, the treatment that has been found successful in one epidemic failed perhaps in the next, in the same locality, which can be explained by the same theory. A notable instance being the epidemic of 1847 in New Orleans, in which the cases were controlled most satisfactorily by quinine; but the advocates of quinine treatment were doomed to a most unexpected disappointment in the severer epidemic of 1853.

In the former epidemic, in all probability the *malarial* cause was in excess, and accounting for the good results of quinine, upon which the physicians mainly depended. The epidemic of 1853, as all will remember, was unsually severe, and I have no doubt the *yellow fever* poison predominated to such a degree as to render the *malarial antidote* almost inert as a remedy. There seems to be a mutual intensification of these subtle poisons by their commingling in the atmosphere, and entering the animal system.

The striking similarity which yellow fever so often presents to the malignant or pernicious forms of malarial fever, has always perplexed etymologists in the in- the investigation of the former—and this theory may open up the way for a

more satisfactory elucidation of the subject. In fact so difficult is the defferential diagnosis, that the first cases in all epidemics are diagnosed and treated for some form of malarial fever, even by *experts*—those who have had considerable experience with yellow fever. It is fresh in the minds of many of us, who were residing in the Southern portion of Georgia at the time, concerning the doubts as to the character of the fever which proved so fatal in Bainbridge, Georgia, a few years since. For several weeks it was pronounced and treated for the *haemorrhagic malarial* fever which had been prevailing in that section previously---until the rapid multiplication of cases and alarming fatality excited and aroused the entire State, and consulting physicians were summoned from the yellow fever cities, and pronounced it genuine yellow fever. There are those, even to this day, and intelligent physicians, too, who are not satisfied with this diagnosis. Bainbridge is a small inland town, with some 1500 inhabitants where yellow fever had never before appeared---neither was it at the time prevailing at other points in the vicinity, so far as I remember, nor did it extend beyond the town. There was also considerable speculation concerning the fever when it first appeared in Memphis in the epidemic before this one. In neither of these instances did the fever yield as promptly to the *first* frosts as has been its custom on the *coast* heretofore. We can here again explain these irregularities on my theory of the two poisons operating together, and the malarial predominating---for we know the latter does not yield decidedly to low temperatures—but is decidedly mitigated.

In the fever called "Typho-malarial" we have another instance of two separate and distinct poisons operating at the same time, in the same patient---the typhoid and malarial fungi. We have a knoweldge of the typhoid fever fungus, which is distinct from the malarial plant. According to the predominance of the one or the other of these causes, will the fever assume the typhoid or the malarial characters in excess, and to be treated accordingly.

The haemorrhagic malarial fever, so similar to yellow fever, requiring nearly the same treatment, I believe to be caus- by the spores of a plant resembling the yellow fever plant, which, combining with the malarial plant, intensify each other, and poison the blood of those coming within its influence, producing this characteristic fever, which, of recent years, has prevailed so extensively and fatally in the malarial regions of the South.

Since this fever made its appearance in Georgia during the years 1868 and 1869, I have carefully and patiently watched and studied it, with a view of ascertaining its true cause, pathology and treatment. I have given the profession the benefit (if any) of what little I have discovered in previous papers, contributed to the "Richmond and Louisville Medical Journal," in 1870, and more recently in "The St. Louis Medical and Surgical Journal" (June number, 1878), and the "Cincinnatti Medical News," October, 1878. In those papers I strongly advocated the use of the "Alum and Iron Mass" as a chief remedy, sustained by giving a few cases. It was in pursuing those investigations I arrived at the theory of the cause of yellow fever as expressed in this paper, and from the strong resemblance of the two diseases, based my theory of the treatment ofyellow fever. I regret my limited opportunities for more thoroughly testing my views of this treatment of yellow fever with the iron and alum mass, before appearing before the profession in an arti cle so strongly recommending it; and would not do so, but for the reason that the disease is prevailing so alarmingly and fatally in our Western cities, and if there is any good in it, the physicians there could use it, test it as thoroughly and perfectly as I could, and more so; and if my sanguine expectations should be realized, even a *tithe* of them, I will feel that I have done some good, though not

present to share with them the dangers and hardships of administering directly to the afflicted ones. I can say, truthfully; I never had more confidence in a remedy, and have good reasons for it, from my experience with it, and success in treating haemorrhagic malarial fever, and the few cases of yellow fever that came under my notice and attention in 1876, from Savannah. I earnestly insist that the physicians who now have ample opportunities for testing the remedy, will do so at once, and communicate directly with me for any further information on the subject. But for my peculiar surroundings, I would at once go to some portion of the yellow fever district, and use this theory of treatment, and make further investigations of the causes.

I invite a careful examination of the analysis of the mass as procured from the waters of the Bedford, (Va.,) springs, which, taken in consideration with my theory of the cause of yellow fever, and its similarity to the form of malarial fever I have considered, the adaptability of the treatment at once becomes apparent. The usual preliminary treatment of putting the patient to bed, covering him up, closing the apartment, foot baths, with strong mustard and pepper, friction of limbs, elder-leaf and other teas to produce perspiration, assisted by hot bricks, bottles of hot water, and boiled corn, about patient's body and extremities, or mustard plasters *ad infinitum*, may sometimes be proper in a guarded manner. But this hot, fiery, pungent treatment, should be carefully administered, as every case may not require this stereotyped proceeding.

In all specific diseases there is some specific remedy on which we build our main hope of reliance as the alkaloids of Cinchona bark in intermittents and remittents, mercury in Syphilis, Iod Potass and Salacylic Acid in Rheumatism, etc. In yellow fever, I should build my hope of cure chiefly on the Iron and Alum Mass of the Bedford (Va.,) Springs, as it is condensed from the water by pure and simple evaporation. It is now well-known to all physicians and needs no special mention. The medical properties of the several constituents as shown by the analysis of eminent chemists will readily suggest their effects on the system. It is an alterative tonic, steadfast and gentle diuretic and febrifuge, mild aperient, acting alike on the secretary and excretory organs—and when administered in proper doses producing as satisfactory, "billious discharges" from the bowels, as are obtained from calomel. I regret the lack of space to speak more particularly of the analysis and consider in detail the medical properties and therapeutical effects of each constituent, I will however refer to some of the most prominent ones. We notice first, the unusual quantity of iron existing in the mass chiefly as ferric sulphate, the most useful and valuable form for medicinal purposes. Also the sulphate of aluminum. The sulphate of magnesia and sulphate of manganese are very valuable properties, the latter just now attracting much interest since Dr. Goolden, of the London *Lancet*, described its peculiar and specific virtues as a remedy substituting calomel, for its direct action on the liver, and free from many objections of this powerful drug, in debilitating affections. When combined with sulphate of magnesia (epsom salts) as in these waters, it requires very minute quantities to obtain its specific action. It is principally to these ingredients we are indebted for the action of this "mass" on the hepatic secretions. Then again we find a large compliment of free sulphuric acid. In the treatment of hæmorrhagic malarial fever, I have for a long time considered the *mineral tonics* absolutely required in its treatment, and I find Professor Jones in the "New Orleans Medical and Surgical Journal" recently commending them in the treatment of yellow fever, also, which is increased and most valuable testimony in support of my theory of treatment of the two diseases, and also, of the further position that a similar treatment is adapted to each. The mineral tonics abound in this combination of the Alum and Iron Mass, containing ten parts of iron to every

hundred of the mass. The other constituents which assist materially in promoting its good effects in various diseases, I have not time to consider in detail.

If these views briefly and imperfectly advanced as to the abnormal conditions existing in yellow fever be correct, the indications of treatment would be mineral tonics to produce contractility of the capillary vessels, and effect needful changes in the blood which has been prevented by the poisons, to stimulate the functions of the kidneys, bowels and skin to increased activity, and, to interrupt any paroxysmal disposition or tendency of the fever. I have not had trouble with suppression of urine, since using this remedy, in the treatment of these diseases, unless the case was too far advanced before treatment.

My mode of administering the Alum and Iron Mass is to begin as early in the attack as possible, giving the largest possible doses the patient will tolerate, saturating the blood, and bringing the system speedily under its influence, and afterwards continue it in such doses as may be necessary to preserve its effects; preceeded by a warm pedeluvium, or, in bad cases, a semicupium. In the meantime make use of such hygienic treatment and regulations as the general indications may require. These, of course, are not regular in all cases, but are governed by all the various circumstances and conditions that regulate us in the treatment of any other disease. If the medicine is properly administered and the patient well nursed under ordinary circumstances, very soon the pain in head, back and limbs will begin to subside, and the nausea be relieved—the urine rapidly improves, losing its thick, albuminous character, gradually becoming clear and limped, and the paroxysms are rendered milder, less frequent and of shorter duration. Of course this is the result in favourable cases of yellow fever, and in Hæmorrhagic malarial fever may be looked for oftener than otherwise.

Of the *modus operandi* of the "Alum Iron and Mass" and the mineral waters of the Bedford (Va.) Springs, I confess knowing but little if anything; and yet, perchance this may be as much as any of us know in relation to the *modus operandi* of many other articles in the relief of diseases for which they are so confidently administered.

The author of the above idea further says, that each and every organ and tissue in the animal economy is possessed of a *vires vitae*, which *vires vitae* is peculiar to and inherent in such organ or tissue. That this *vires vitae* is susceptible of being acted upon, stimulated or depressed by appropriate agents, follows as a necessary consequence. Add to this, the well known established principle in therapeutics, that each remedy in the great arcana has some inherent property or quality that directs its action to one organ or tissue in preference to another; in other words, it is possessed of an elective affinity or franchise which directs, controls or modifies its action; and we derive our knowledge of this affinity from accident, from experience, or after a chemical analysis. We venture to use it when there appears to be a natural adaptation to the pathological condition of the organ or tissue. From these aphorisms, pathological and therapeutical, we may be able to deduce the *modus operandi* of the Alum and Iron Mass in yellow fever and hæmorrhagic malarial fever.

If the foregoing propositions and suggestions, hastily and very imperfectly considered, contain any considerable amount of truth, it behooves us, as the guardians of suffering humanity, to propose better ones, or adopt them at least for a trial.

I am not able to furnish an egotistical array of cases of yellow fever, but only make a simple statement of a few *facts* in regard to the effects of this remedy in the disease under consideration. I hope no one will be so unkind as to denounce the remedy on account of the humility of its origin. I commenced using it in cases of the diseases mentioned and found I was much more successful with it than

with any former course pursued by me. I have instituted comparative tests with it and other remedies recommended by our best authors, and yet prefer the one under consideration. I am aware, and it is proper, that facts, ascertained by experiments sufficiently clear, and repeated sufficiently often, and observed by a sufficient number of witnesses, must be taken as the basis of all the sciences--and of ours more than all the rest.

Every theory appeals at last to facts and experience: there is no alternative, and must consent to be judged by the observed results of the application of the principles or hypothesis suggested. The powerful force and reliability, as well as confidence of our ancient brethren in the results of experience and experiment as being conclusive of the value of any remedy—we find in the sayings of Brousais, who was the most ingenious and obstinate of dogmatists. He said in his forcible strictures upon the numerical plan of Louis that, "If it can be proved upon experience that tartar emetic will cure a *gastro enterite*, I will administer it; if arsenic will do good, I will prescribe that." This, then we may recognize, as the primary rule, the elementary principle of our science. From the champion of every theory or school we should be willing to learn what he is eager and able to teach—and to select from each his best weapons and make them useful in this interminable contest, and as in the phrase of Bacon, "all error is founded in some truth" we can find instruction everywhere.

In concluding this paper I desire to say further concerning the use of the Alum and Iron Mass—that it is a very valuable remedy in many forms of cutaneous affections, more especially of the sealy variety. I have seen cases of Psoriasis inveterata which had resisted the long continued use of arsenic, iodine and other remedies, yield readily to its influence, especially in patients of dissipated habits, complicated with enlarged liver. It is also a useful remedy in eczema and syphilitic squamæ; open ulcers which have long resisted other treatment I have seen heal rapidly by its local application—at same time taking it internally.

In the various forms of dyspepsia, I have observed the most gratifying results, speedily relieving the severe headache caused by deranged digestion and inactive liver.

The following extract from a private letter written me by Bishop Geo. F. Pierce, of Georgia, is valuable testimony of the efficiency of alum and iron mass, for the troubles he mentions and from which many of our public men suffer in the South, who perform large amounts of brain work, as does this highly favored, eloquent, and universally beloved Bishop.

He says—"I knew one extreme case of dyspepsia cured by the iron and alum mass. It cures ordinary sick headache, will prevent it if taken in time. I found it in my own case when greatly run down in strength, an excellent tonic restoring appetite and vigor. I have great faith in it, in all cases for which it is recommended." If any reliance can be placed on what I have written concerning Alum and Iron Mass, it is unquestionably a valuable medicine, possessing active curative powers, and having a wide range of action. The supply being inexhaustible, easily procured, and cheap—is more likely to be pure and of uniform strength. It is peculiarly adapted to hospital and dispensary practice, and should attract more attention from the profession in this country than has hitherto been given to it.

YELLOW FEVER.

BY T. B. GREENLEY, M. D., OF KY.

There is quite a controversy of late among medical men in regard to the contagiousness, and portability of yellow fever both in the medical journals and secular press of Louisville.

Some of our ablest brothers are arrayed on either side of these important questions; among whom stand Drs. Blackburn, Gaillaird etc., on the affirmative,

and Drs. T. S. Bell, L. P. Yandell etc. on the negative, whilst a few take middle ground, and say that it is not personally contagious, but may be transmitted by means of clothing, bedding, &c. At the head of this theory stands Surgeon General Woodworth of the U. S. Marine Hospital service.

Now where such prominent and able men in the profession as these differ so widely in opinions and *theories*, how are such differences to be settled except by facts as developed by the history of the disease?

Dr. Bell strongly takes the ground that yellow fever is the product of malaria, and of course endemic in its origin. He maintains that sixty days of solar heat sufficient to cause a mean range of 76 degrees F. with moisture and vegitable matter in due quantities, will generate malaria strong enough to produce the disease. He also affirms that we never have in the Ohio valley solar temperature sufficiently protracted to engender this plague, and hence it is impossible for for it to become epidemic in Louisville and other cities and towns on the Ohio. According to the history of the disease in Louisville, there never has been a case aside from those who had lately arrived from infected localities.

Dr. Blackburn on the other hand maintains that the disease is both contagious and portable, and that it is exotic in its origin. He is of the opinion that the portable principle consists of a microscopic germ that may be carried in clothing, or even in ballast on board of ships from point to point, and when brought in contact with persons living in localities where a great deal of uncleanliness and filth exists may develop the disease. He also believes that a person in health may take it from a patient sick with the fever. Either of these views or theories would seem to be more reasonable than that of Surgeon General Woodworth. He says in his circular respecting quarantines that a well person will not take the disease from a sick one, but may take it from his clothes. Now this idea at first sight even strikes the mind as palpably unreasonable. It is as much as to say that the poison, or contagion or germ, or microphyte or whatever principle it may be that produces the disease is much stronger after it leaves the body of the patient and enters his clothing or bedding, than it is as it emanates from his body. That idea is too absurd to be entertained for a moment. Were it true the question would arise how shall we treat yellow fever without clothing or bedding? We might tax the genius of some inventive mind to construct a matrass of hair or very fine wire and dispense with clothing. Male and female patients could be attended by nurses of their own sex, and thus stop the spreading of the disease.

On the portability and contagiousness of the disease depends the entire question of the utility or non utility of quarantines. If it is not portable nor contagious then quarantining against it is a great and monstrous outrage, both against the people of infected places and the commerce of the country. It is a question of momentous import, and should demand the attention of government authorities. There should be a commission appointed of the most learned and scientific men of our profession, who are versed in the history of epidemics, and who could set aside preconceived *theories*, and investigate and collect *facts* in regard to the habitues of yellow fever so as to enable them to report unbiased and profitably. If it should be ascertained that it is not contagious and cannot be transported, then the barbarous and inhuman quarantine should be abolished.

Now which of these theories is the most plausible? We will test them by facts. Yellow fever never prevails in cold weather, in fact cold weather abates it at once where it is prevailing. It always selects localities where there is a great deal of filth or in close proximity to marshes or malarious places after long protracted solar heat.

CLEANLINESS AS A SURE PROPHYLACTIC.

If a person goes from an infected locality to one where the disease never has prevailed he may take it, but no one else will take it from him.

This fact is being now fully verified every day in Louisville. Many persons are going there from New Orleans, Memphis and other places in the South where they are taken sick and die, but not a single case has yet originated there.

Some might say that these facts do not prove the disease not to be contagious.

We are not trying to prove a negative, but leave the other side to prove the affirmative—that it is contagious. If it can be shown that a single case occurred independent of contagion or portable germ then that theory falls to the ground.

Doctor Woodhull, Surgeon U. S. A. who went to Savannah to enquire into the cause and study the history of the epidemic of 1876 in that city, after a thorough investigation came to the conclusion that it was of local origin.

He was strongly prejudiced in favor of the importation theory.

His report is published in the July Number of the "American Journal of Medical Sciences" for 1877. He says: "The condition of Savannah in the summer of 1876 may be epitomized as follows: On the west, north, and southeast, and in a less degree on the east there were badly drained lowlands that had been flooded by unusually heavy rains in June; on three sides, but especially on the west, large amounts of garbage were deposited near the city; the sewers gave off foul gases, sufficiently to attract general attention; the supply of the city waterworks were drawn from contaminated sources; the soil of the city was probably saturated with the products of animal decomposition, and the wells from which much of the drinking water was drawn penetrated this soil; to the east at an average distance of 700 yards was the open and practically stagnant sewer, known as the Bilbo canal, and 400 yards further east was a rice plantation in full cultivation.

While as stated at the outset, I began this investigation with the expectation of tracing the epidemic to an imported source. I have been led step by step, contrary to my anticipations to these conclusions, to wit: that it is of local origin and dependent on the unhealthy condition of the city and its surroundings.

The result of Dr. Woodhull's investigation, which was thorough and exhaustive, and the facts of its local origin being so strong and convincing as to change his preconceived theory of the exotic origin of yellow fever should have great weight in the minds of all members of the profession who have not had equal opportunities to study its characteristics. Much credit is due him for his great pains taking investigation and extremely able and unprejudiced report.

I look upon it as offering, not only strong but unanswerable argument in favor of the local origin of the Savannah epidemic of 1876, as well as being dependent upon the presence of malaria in a virulent form.

The germ theorists all agree that certain conditions must exist in the localities where the contagious principle is caused before it can take root and produce the disease. There must be hot weather, filthy streets, etc; in other words there must be malaria in due quantity to furnish the germ a nidus for its proper development.

Now you see that if it was not for this little mite of a germ, this inconceivable, infinitesi mal microphyte, the contagioportable theorists might shake hands with the malarial theorists.

At first view it would seem that such a small atom might be gotton over without stumbling, but in this it appears we are to be disappointed. That imaginary particle is to be held out. It must be cousin-german to that invisible agent that travels over the world producing cholera.

Laying all theories and prejudices aside I believe all the phenomena of yellow fever can be accounted for by taking malaria as its cause of production. It has its synonim. to some extent, in some of the known malarial troubles; to wit: conjestion, remittent, pernicious intermittent, and if you please cholera. It generally attacks in the night, and is attended with suppression of urine, resembling cholera in these regards. It prevails in localities and at the season of the year and under circumstances when and where we might expect known malarial diseases to prevail, and when all the elements are present to constitute malaria. It is cut short by the very weather that we would expect to oust other malarial diseases. As it resembles known malarial troubles in some of its characteristics, would it not be well to try the great anti-malarial remedy as a prophylactic? Dr. Bell highly recommends the froe use of quinine in this way, and as it is an antidote to malaria generally, I have no doubt that if persons living in infected localities would keep their systems saturated with this remedy it would prevent the development of the disease.

Dr. Bell believes that cholera and tropical dysentery, as well as yellow fever depends on malaria for their cause, but in varying degrees of intensity. He also believes in the latency of these affections; that persons may after leaving localities where the diseases are prevailing, have them developed in places even where they could not originate. This has occurred frequently in regard to yellow fever and cholera.

A circumstance occurred recently that might by the casual observer be construed to favor the theory of portability and contagion. I alluded to the case of the steamer John Porter, which left New Orleans in July some time after the yellow fever prevailed in that city and made her way up the Mississippi as far as St. Louis, thence to Louisville and up the Ohio as far as Gallipolis. some distanee above Cincinnati. Most of her crew had either left or died before reaching Louisville, and new hands were obtained. She was quarantined at Gallipolis and not allowed to permit any one to go ashore. Several of the recruits took the disease aboard and died. Now it seems to me that the development of the disease aboard that boat can be very easily accounted for on the malarial theory, without paying any attention to the imaginary germ. All the reporters who went on board of her represent her condition as far as filth, and stench from bilge water were concerned, to be most intolerable. She verily brought the New Orleans poison with her, and as the weather continued hot during her trip several weeks it did not abate any of its virulence. A person confined on board of that boat with all the surroundings were just as much exposed to the cause of yellow fever as he would have been in an infecteu district in New Orleans.

CHOLAGOGUES.

Professor Rutherford pointed out that clinical observation was very defective in regard to the action of medicines on the liver. It was difficult to ascertain the amount of bile secreted. Some substances resembled the bile in color, as rhubarb. Again, when bile had been secreted, it was sometimes retained in the alimentary canal, especially if the cholagogue were not at the same time a purgative, as was the case with many substances which acted on the liver. Again it had been proved by his experiments that all medicines which acted as purgatives, but did not stimulate the liver, lessoened the secretion of bile. This law had been clearly demonstrated. After reviewing the methods of experimenting upon the liver by former experimenters, as Hughes Bennett, Rohrig, and others, and pointing out wherein their methods were defective or fallacious, Professor Rutherford briefly des-

*Paper presented to the Medico-Chirurgical Society of Edinburgh, June 19th, 1878.

cribed how his experiments had been conducted. They were all performed upon dogs in a state of fasting. The animal was fed at 4 P. M., and the experiment was commenced about 9 o'clock the following morning. The animal was kept perfectly still by means of curara, which paralyzed its movements, and artificial respiration was kept up by making an opening into the trachea and introducing a pair of bellows, worked by a small steam engine. The respirations at sixteen per minute. It was necessary to keep the dog in a state of fasting, for when food was being absorbed the hepatic cells were rendered more active. It was necessary to use curara, for chloroform and ether both increased the activity of the liver. Several observations were first made to ascertain how much bile was secreted normally by the liver in a given time. The amount was measured every quarter of an hour, and the experiment lasted nine or ten hours. An opening was made into the abdomen in the linea alba, a canula was introduced into the common bile duct, and the bile was allowed to fall into a fine cubic centimetre measure. The gall-bladder was squeezed so as completely to fill the canula, and a clamp was placed on the cystic duct to prevent the return of the bile into the gall-bladder. It was found that the flow of bile when no substance was applied was tolerably regular, but had a tendency to diminish after several hours, owing to the exhaustion of the liver. The substances were all introduced into the duodenum for two reasons; first, on account of the large amount of mucin in the stomach of the dog; and secondly, because many maintained that the action of cholagogues was due to their irritating the mouth of the common bile duct.

Professor Rutherford experimented with the following substances:

1. Croton Oil.—He commenced with this substance because, according to Rohrig, it was the most powerful cholagogue. In one experiment he gave 15 grains, in another 3 grains of croton oil, and he found from these experiments that croton oil was a cholagogue of such feeble nature that it might well be discarded. He tried also the action of water alone, and found that it did not affect the secretion of bile to any notable extent.

2. Podophylline.—He injected 10 grains of this substance, and found only a very slight increase of bile, because it acted as a too powerful purgative. In another case he gave 6 grains of podophlline, and there was a very constant rise in the secretion of bile. As resinoid substances were very insoluble unless mixed with bile, which dissolved such substances, he injected 9 grains of podophylline with a little bile, having previously ascertained that such an addition did not notably affect the secretion of bile. In this case there was much purgation, and for the first half hour the secretion of bile rose enormously, but afterwards fell almost to a stand-still. From these experiments he found that podophylline was a powerful cholagogue. As the experiment occupied a great deal of time Professor Rutherford associated M. Vignal with him in their execution.

3. Castor Oil.—This was the next substance tried. He gave one ounce and found that it did affect the liver. On the other hand, as purgation set in there was a diminution of the secretion of bile due to the purgation.

4. Gamboge.—He gave 4 grains, and there was no rise, but a decided fall, due to excessive purgation.

5. Sulphate of Magnesium.—He gave 60 grains, and after a time another 60 grains, but noticed only a fall in the quantity of bile secreted.

5. Chloride of Ammonium.—He gave about 20 grains of this substance four times repeated, and the secretion fell. The effect of purgation was to diminish the bile by draining the portal system. Part of the bile was normally reabsorbed, and especially the sulphur-containing substance, and reconverted into taurocholic acid; but purgatives prevented this by washing away the bile after it

had been poured into the alimentary canal.

7. Aloes.—He gave 60 grains, and the secretion of bile rose high, and remained so for a long time. Small doses affected the secretion of bile only slightly.

8. Rhubarb.—He gave 17 grains four times in the form of infusion, and the secretion of bile rose afterwards. Rhubarb did increase the secretion of bile, but was a feeble hepatic stimulant.

9. Senna.—He gave 45 grains five times. It stimulated the liver, but was not a very powerful cholagogue, being accompanied by purgation.

10. Colchicum.—He gave 60 grains of the extract, and there was a very high secretion. It was a decided cholagogue, but not a powerful one.

11. Taraxacum.—He gave 180 grains of the extract and afterwards 120 grains, and the secretion of bile rose, but so slightly that he concluded that taraxacum was an extremely feeble cholagogue.

12. Scammony.—He gave 4 grains and afterwards 8 grains, and found it a very feeble cholagogue.

FEVER OF DENTITION.

A writer (in Dental cosmos) on the high fevers and nervous excitement of teething children, threating spasm says:

As means to allay nervous and arterial excitability, no medicine in the experience of the writer, surpasses the bromide of potassium, or a combination of that salt with veratrum viride.

To one or two drops of Norwood's tincture of veratrum viride the writer conjoins five to ten grains of bromide of potassium, repeating the dose every two, three, or four hours, as found necessary. If irritability of stomach exists, the bromide of camphor may take the place of the potassium.

As formulæ for the first, the following may be given:

R.—Tinct. verat. viride (Norwood's,) gtt. viii;

Potass. bromidi, one drachm;

Aquæ, one ounce M.

A teaspoonful pro re nata.

In using the veratrum viride it may be best to employ it unmixed with other medicines,—that is, where a nurse is to be trusted. Given in drop doses, it can be repeated each half hour, or hour, until the frequency of pulse is found to yield. It is, however, a formidable agent, and is not to be used except under close supervision by the physician.

Lancing the tumid and conjested gums is a practice that, in the majority of cases will anticipate all necessity for constitutional medication. A lancet and an aperient, or a little iced lemonade, constitute the therapy commonly demanded in practice.

Concerning irritability engendered in the spinal cord by improper motions, much is to be said.

At the present time the writer has under his professional care a patient, where spasms of the neck-muscles of a most unyielding character are traceable directly to concussion produced from riding over the paved streets, although the carriage used by the lady is of the most luxurious description.

The jumping up and down of a baby in the arms of a nurse is, at the dentitional period, a reprehensible practice; quiet is the indication.

Not always is it, however, that dentitional irritability is found to have associated with it vascular perversion. It is grave to commit fault in such direction of diagnosis. To make such mistake could have no excuse; to learn the condition implies alone the placing of a finger upon the temporal artery, together with appreciation of collateral circumstances.—A. B. C.

TREATMENT OF TYPHOID FEVER.

In a lecture by Dr. Alonzo Clark, reported in the N. Y. *Med. Record*, he remarks: I may safely say to you that a case of typhoid fever of average severity needs no medicine except for the relief of certain symptoms, such as sleep-

lessness, perhaps a little urgency in the diarrhœa, sensation of burning on the surface of the body, etc. There are a great many cases of typhoid fever which need no treatment whatever by way of drugs, but everything by way of management of the case. Still, it does happen in many of these cases that some one of the symptoms requires treatment. The diarrhœa, for example, in many cases requires restraint.

Diarrhœa does not occur in every case of typhoid fever in this country; perhaps it does not occur in two-thirds of the cases. The astringent I have referred to so frequently is found to answer a very good purpose. It consists of:

B. Bismuth. subnit....dr.i.
Morphiæ sulph....gr. i.
M. et. div. in chart. No. xii.
One to four a day.

The common astringents tr. kino and tr. catechu may be employed, and the decoction of blackberry root is sometimes very servicable. In some cases it requires the moderate free use of opium to restrain the diarrhœa.

There is always a *cough* in typhoid fever, but as it is not important in the average case, I have not mentioned it until now. There is slight bronchial irritation, which appears early in the disease, and continues usually until the period of imperfect anæsthesia is reached, then it may cease. The material raised is commonly a glairy mucus, but in some cases the slight bronchitis becomes a catarrh, and will require treatment. It will need the same treatment as bronchitis occurring under any other circumstances, except that the tonic expectorants will be most likely to do good. Perhaps one of the best that can be used is the *Co. Tr. of Benzoin*, in doses of ten drops on sugar once in three or four hours. A very good combination is the tincture of the balsam of tolu and the mistura guaiaci.

B. Mist. guaiaci....dr. j. to ℥ss.
Tr. balsam tolu.....gtts. vj. to x.
M.

This can be repeated every two, three, or four hours. Sometimes the inhalation of the vapors of warm water seems to be required for one or two hours each day.

Restlessnezs is one of the prominent features of the disease, and that will very frequently be entirely quieted by sponging the surface of the body with warm or cold water. If the temperature is high cold water is better than warm; and in some cases a Dover powder will be required.

The *temperature of the body* will require your attention. In many cases of typhoid fever it does not rise to a dangerous point; in a few cases it does. You will see the greater number of cases go through the entire course of the disease without the temperature at any time reaching 105° F. In a case of average severiety the maximum temperature is about 104° F. in occasional cases it reaches 106° F. or 107° F., and then you will either give quinine in pretty decided doses or use cold water for its reduction. If the patient is a young person, the cold bath is the most convenient means of reducing the temperature, and certainly the most efficacious. The temperature of the bath should be only ten degrees below the temperature of the body when the patient is first put into it. If the temperature of the body be 102° F., the patient may be placed in a bath having a temperature of 95° F.; then some of the warm water can be removed, and be replaced by cold water until the bath has been reduced to 80° F. If the patient is permitted to remain in the bath twenty minutes, the temperature is usually reduced 1 2 3 4 or 5 degrees.

He is then removed from the bath, put back into bed, and it will be ssveral hours, usually, before the temperature will rise as high as it was before using the bath. When it rises, another bath is to be given, and in that manner you will go on repeating the bath as often as may be necessary to keep the temperature below the point of danger.

The son of one of the Professors in

the college has within the present season had typhoid fever. In his case the bath was used about five times a day for several days, and always with the result of reducing the temperature and affording great relief to the patient.

For the hemorrhage from the bowels there is but little that can be done, unless, in addition to absolute rest, the fluid extract of ergot be administered.

For the perforation of the bowels, I have some faith in the opium treatment. As I told you, I feel confident that I saved one doctor's life by the narcotizing influence of opium, and there is no objection in typhoid fever to the administration of this drug.

"Grave fed fevers," typhoid fever as well as typhus; and now we come to the two essentials in the treatment of this disease. I am in the habit of repeating the old proverb, "Stuff a cold, and starve a fever," and then add that we stuff them both now. First, then, the administration, steadily and preservingly, of such food as can be absorbed by the stomach. We cannot talk much of digestion; the stomach is in a diseased condition, and cannot digest well, consequently everything solid in the way of food is out of the question. Most of these patients dispose of milk pretty well. For all those who can dispose of it, milk is the best food that can be used. For those who cannot use it, you will be obliged to do the best you can with beef-tea, raw egg beaten up with water, and made of such consistancy that it can be taken with a spoon; and the expressed juice of beef. The beef-tea does not contain a great deal of nourishment, and when it can be used, milk is a much better article of food.

The expressed juice of beef answers very well, and can be obtained by cooking a piece of steak so as just to crust the two surfaces, and then cutting it into pieces and squeezing the juice out with a lemon-squeezer. The broths are given rather as diluted food in the early part of the disease, when it is supposed that the patient should not take much nourishment, but as the disease advances, the food should be more and more sustaining. In cases in which the stomach fails to retain the food, nutritious enemata should be employed. You will remember that the disease which produces the diarrhœa, is in the small intestine, not in the large.

The other essential of which I wish to speak is fresh air, but I will reserve that for the opening of the next lecture.

CAUTERIZATION OF CERVIX IN VOMITING OF PREGNANCY.

BY JOHN M. BORING, M.D., ATLANTA, GA.

My attention was called to an article on "The Vomiting of Pregnancy and its Treatment" published in the "London Lancet" in which is detailed the history of quite a number of cases of vomiting of pregnancy and its treatment by Dr. Jones, of Chicago, and Dr. Marion Sims, of New York. I was so favorably impressed by the history of the cases detailed by Drs. Jones and Sims, that I resolved to give the treatment suggested, and so successfully practised by them, a fair test in the first case that fell into my hands. I had but a few days to wait before an opportunity presented itself.

On June 20, I was consulted by a gentleman living a few miles in the country in relation to his wife, who, he stated, could retain nothing on her stomach. After making the inquiry, as to her general health, etc., usual in such cases, I decided that pregnancy existed, and was the cause of all the trouble. I prescribed for the lady, and instructed her husband to let me hear from her in a day or two; if not relieved. He came back and reported her no better. I then prescribed alterative doses of sacharated calomel; also Creosote Emulsion, with Sub. Nit. Bismuth. In a few days he returned and reported no improvement, and stated that she was decidedly worse, and that he wanted me to see her immediately. I saw her in the afternoon of the sixth day, from the time of my

first prescription. She was truly in a precarious condition; she could not retain anything in the stomach, not even ice; she was emaciated, and her countenance denoted great anxiety and distress. I then ordered Oxalate of Cerium, gr. ii. every two hours. I was not prepared to carry out the suggestions of Drs. Jones and Sims at that visit, as I had no speculum with me, I visited her again on the next day. I found her in, truly, a deplorable, and, to all appearances, alarming condition. She looked haggard and worn out—in fact, was completely prostrated; the husband and friends seemed apprehensive that she would certainly die. I resolved then to try the application of the Nitrate of Silver to the Os Uteri. After the necessary preparations I introduced the speculum and found the Cervix very large and soft; the os uteri not ulcerated, but imflamed; opened sufficiently to receive the index finger with ease. I applied the solid nitrate of silver to the os uteri, passing the pencil or stick of caustic, some three-fourths of an inch through the os into the cervix; I, of course, used care in making the application, so as to produce the whitened appearance usual on the application of caustic. All other treatment was stopped. I did not see or hear from the lady for one week. When I called to see her at the end of one week I was agreeably surprised to find her up and attending to her domestic affairs. She informed me that the sick stomach and vomiting ceased in one day after the application of the caustic, and that her appetite improved from the time the sickness ceased. I made another application of the caustic to the os as at the first application producing similar results of a whitened appearance. I have not visited the lady since; but have heard from her repeatedly. There has been no return of the sick stomach; her health is excellent. She is now in her seventh month of pregnancy. At the time of the cauterization she was about three and a half months advanced in pregnancy. I would here remark that this is her second pregnancy. She is a lady of fine general health; never sick much in her life; was married twelve years before the birth of the first child—a fine healthy boy. This case is so analagous to one or two included in the number of cases reported by Drs. Jones and Sims, and the treatment so effectual and satisfactory to myself and patient—puting an end to such agonizing suffering as she was enduring—that I am induced to present it for publication. I hope that my professional brethren will avail themselves of the first opportunity to try this remedy, and report the results to the Profession as I am firmly persauded that in it we have found a reliable remedy for this hitherto intractable and distressing affection.

TREATMENT OF UTERINE FIBROIDS WITH GALVANISM BY PROFOUND PUNCTURE

Is the title of a most valuable article in the July number, 1878, of the *American Journal of Medical Sciences* by Drs. Gilman Kimball and Emphraim Cutter. The paper is the one which was substantially, if not verbally, offered at the recent session of the American Medical Association. The treatment by the plan indicated in the article was begun in 1871 Of the 50 cases treated since that time, in seven cases, the growth was not arrested; four died; in thirty-two cases the growth was arrested; three cases were relieved and four cases cured.

The battery used by these gentlemen consists of eight plates each of carbon and zinc, 9 by 6 inches. The first four pairs are arranged zinc and carbon; the remaining four carbon and zinc. They are pierced with three circular holes, arranged triangularly—two at the top, and one in the centre, below. Cylinders of hard rubber run through and secure the plates in position by means of nuts. The conductors are made of copper, and are properly insulated; at their extremities are the electrodes. The solution used in the battery is made by the following formula:—R. Pottassium bichromate, saturated solution, Oj; sulphuric acid,

ʒvij. Quantity of current is what is required, and it must be profoundly applied, and galvanic action must be confined to the tumor alone.

The zinc electrode comes away readily after the operation, but the carbon electrode sticks in the tissues This is cited as an evidence of the passage of the galvanic current through the electrodes.

The duration of the application of the electrodes has varied from three to fifteen minutes. In each individual case the applications have varied in number from one to nineteen, at intervals of from seven to fourteen days.

The electrodes may be introduced directly through the abdominal, or the vaginal, or the rectal walls, into the fibroid.

Of the fifty cases, only three seem to have been negresses.—"Virginia Medical Monthly."

ABSTRACTS AND GLEANINGS.

PROCEEDINGS IN FRENCH SOCIETIES.

ACADEMY OF MEDICINE, PARIS.—*Session July* 25, 1878.—M. E. Lancereaux presented a paper which had been read before the International Geographical Congress, 1875, entitled:

Geographical Distribution of Pulmonary Phthisis.—The disease is found in all climates and among all people, but it is not equally destructive everywhere. Relatively rare in polar regions, the disease prevails more especially in temperate climates, and remarkably so in dense populations, and particularly in great industrial centers. It is of common occurrence in the tropics too where its course is very rapid. But these general notices only give a vague idea of cosmical influences in the production of phthisis. In order to arrive at an exact conclusion on the ethiological conditions of the disease, he had been obliged to analyse, in a wide sense, climate in its chief elements, temperature, moisture, dryness, altitude, etc., and to take into account the habits, way of living, muscular activity of different communities and tribes, and he had arrived at the following conclusions: cold has no influence in the genesis of tuberculosis; the inhabitants of elevated regions, 800 to 1,000 yards above the level of the sea, are as exempt as those living in polar latitudes. On the contrary those inhabiting low, damp and warm districts are very subject to phthisis. Crowded quarters, poor ventilation, with food unsuited to the climate, excess in alcoholic beverages, and lack of muscular exercise are circumstances which most favor the development of tubercle. Savags tribes do not suffer from this disease which decimates the civilized races: hence this conclusion, *that tubercular phthisis is a disease of civilization*, and it is the duty of the State to procure its destruction. To attain this, Doctor Lancereaux demands laws regulating the construction of houses, increased breadth of streets and abundant air space, not only for soldiers in barracks, but for workmen in factories, families in tenement houses, children in schools, students in colleges and all those in the humblest positions.—*Lancet and Clinic.*

PORRO'S OPERATION; ANOTHER SUCCESSFUL CASE.

M. Wasseige reported to the *Academie royale de Belgique* a completely successful operation of Porro, prefacing the report with a history of the operation and a comment of comparison between it and the Cæsarean section. The anthor claimed that only two cases had resulted fatally after this operation, while it is probable that all the patients would have died after Cæsarean section. We give below a

very brief account of the case and the operation:

Josephine Moyse, rachitic, hight 1. 2. m., sacro-pubic diameter 0.04 m., marked diminution of all the diameters of the pelvis; was examined during the seventh month of pregnancy and directed to present herself at the hospital at the intimations of labor. She entered during the service of M. Wasseigo, April 14th, 1878, at 6½ o'clock P. M., having been in labor already three hours.

The operation was performed at nine o'clock p. m., in the presence M. Vaust, director of the Maternite, M M. Plucker, Closon and Dexhamps, assistants, and Drs. Lebeau and Bidlot with the entire *cortege* of the antiseptic method of Lister. The rectum and bladder were emptied by injection and catheterization, and the patient was put thoroughly under chloroform before the operation was commenced.

M. Wasseigo now made an incision descending from the umbilicus to 0.04 m. above the symphisie pubis. The uterus having been uncovered, the incision was completed over the index finger with a blunt pointed bistoury. The uterus was then opened* and the fœtus rapidly extracted. The child, a female, was full of life. The operator now raised the uterus with its adnexa out of the pelvic cavity by traction upon the incised edges. The placenta fell forwards and was removed. The uterine incision was now seen to run along the lower half of the anterior face of the organ, a situation accounted for by the position of the uterus elevated in the abdominal cavity on account of the contraction of the pelvis. The ecraseur was now adjusted about opposite to the internal os in order to have the whole uterine wound above the chain when the entire organ was cut off with a long bistoury, without the escape of even a drop of blood. The ecraseur was then used as a clamp and the bistoury was passed across, dividing everything 0.02 m. above the chain.

The uterine stump formed a veritable rose at the lower angle of the uterine section. A long, strong needle was passed through it to prevent its retraction within the abdominal cavity. The chain of the ecraseur being now removed, a drainage tube was inserted into the culde-sac of Douglas; the toilet of the peritonium was completed and the abdominal wound was closed at four points with metallic suture *enchevillee* and a whole series of superficial sutures of silver wire.

The patient was then bathed with a carbolized solution and the uterine stump was cauterized with a solution of chloride of zinc eight times. The ligature chain about the stump, the needle and the stump itself were enveloped in the Lister dressing and two caoutchouc sacs filled with ice were placed upon the abdomen. The time occupied during the operation and the dressing was one hour.

The child weighed 2,580 grammes, and was 48½ centimeters in length. The uterus and its adnexa weighed 765 grammes.

The mother recovered perfectly and left the hospital with a healthy child, May 24, forty days after the operation.

Details of the case and operation will be published in the next number of the Bulletin of the Academy—*Gazette Hebdomadaire*, June 7th, 1878.—*Clinic.*

*Porro's operation, as since improved, opens the uterus only after its ablation from the pelvic cavity, an improvement whose advantage is obvious enough.—Trans.

TINC. IODINE IN FEVERS.

Dr. Laughlin (in *Lancet and Clinic*) says, "I have extended its use to the treatment of remittent and the so-called typho-malarial fevers in connection with other appropriate remedies, with good effect. Its property of relieving nausea and vomiting makes it very valuable in cases of remittent attended with these conditions. I feel confident that it aids materially in cutting short remittent fever.

In chronic ague it would seem to fulfill a double indication by reducing the enlarged spleen, and at the same time arresting the pyrexia. Latterly I have

used and prefer Lugol's solution to the tincture, as it is in a condition to mix readily with water—with which it should always be largely diluted—and is somewhat less liable to decomposition by long standing; giving it in doses of ten to twelve drops three times a day in ague, and five to eight drops every six hours in fever without regard to pyrexia; while watching its effects upon the schneiderian and pharyngeal mucous membrane. Dr. Munro gave the tincture in from fifteen to twenty-five drop doses three times a day. In cases of chronic malarial cachexia where a combination of iron, quinine, arsenic and strychnine are indicated, I have found the combination with iodine or its simultaneous administration of great importance in the reduction of the enlarged spleen.

THE AMBULATORY TREATMENT OF PSORIASIS VULGARIS.

The author says that, as is known, the treatment of psoriasis is a difficult and thankless task. By the greatest patience and perseverance only temporary abatement is attained, and not rarely a new and more intractable eruption follows; of the agents hitherto employed, some are not without danger from long use, as arsenic; some are too troublesome, as baths, inunctions, etc.; some too painful, as friction with brushes, Vleminck's solution, etc.; and finally, the greater part are without effect. It is therefore no wonder that even the most eminent authorities include this among the incurable skin diseases.

The above facts, the author thinks, justify him in publishing a method of treatment without danger, cleanly and cheap. With the prospect of a cure, intelligent patients can not only be treated without confinement, but pursue the treatment without the oversight of the physician.

Crystalized carbolic acid drij is dissolved in ozj of collodion, and brushed over the affected portions of skin. When the eruption is limited it may all be brushed over at once, but where it is extensively diffused, a gradual application is preferable, say one day an arm, and after two or three days the other arm, or foot, etc. This precaution should be observed to prevent carbolic acid poisoning since it readily passes from the skin into the blood. The application is not repeated as long as the collodion remains fixed to the skin. It is superfluous to put on fats. The physician should apply the solution, for often a patient makes a misuse of medicaments.

In a few minutes after the painting pain arises, but it is endurable, and does not continue more than ten or fifteen minutes. In a few days the patient and physician will be surprised to find that the eruption has lost its original character. Instead of the nasty, red, fissured, bleeding appearance there are seen smooth shining flat collodion flecks which are not disturbed by washing, baths, or friction of the clothes.

G. has also found that psoriasis spots not brushed, sometimes disappear, as it seems, from absorption of the carbolic acid. His observation has noted no outbreak of the eruption in new places as occurs with other methods of cure.

The application must continue as long as the seat of the eruption is red and infiltrated. The treatment on the whole may require 2, 3 or more months, but when the convenience and ease are considered this will not appear long.

Concerning relapses they need excite no apprehension, since they again give way under the same treatment.—*Lancet & Clinic.*

RECENT PROGRESS IN PATHOLGICAL ANATOMY.

BY R. H. FITZ, M. D.

[From the Boston Medical and Surgical Journal.]

PATHOLOGICAL ANATOMY.

REGENERATION OF NERVES.—Gluck has recently conducted a series of experiments with reference to the healing of

nerves after they have been cut. The sciatic nerve of fowls and the pneumogastric of rabbits were exposed and cut through, the results of the operation depending upon the subsequent relation of the cut ends to each other.

Immediately after the section was made, the nerve fibres projected beyond the retracted sheath, and the myeline escaped. The cut ends were united during the next few days by a grayish white translucent tissue. If a considerable portion (one centimetre or more) of the nerve was removed, the intervening gray tissue became converted into a dense fibrous callous, no regeneration of the nerves occurred, permanent paralysis resulted, and the animals died during the subsequent five months. When, however, the cut ends were closely united, without the removal of a portion of the nerve, the results were quite different, being the more favorable the less the displacement. In certain cases, where the nerve was simply perforated, longitudinal rows of fusiform cells, surrounded by abundant homogeneous intercellular substance, were found within seventy-two hours after the operation. These bridged over the interval between the cut ends, sometimes extending from a central to a peripheral fibre. After eight days the ends were united by non-medullated nerve fibres, which slowly and gradually became thicker.

When the nerve was wholly cut across, and the ends united by sutures, the healing process took place in a similar manner, more time being required. Within eighty hours after the operation the wound was closed by a gray granulation tissue, in which, within a fortnight, spindle cells arose, apparently from the nuclei of the neurilemma, and served to unite the cut axial fibres, a differentiaton into axis-cylinder and myeline apparently took place later within these cells.

The author considers that the newly-formed fibres arise from these large granular spindle cells, which are to be regarded as of new formation rather than as outgrowths from pre-existing fibres. They resemble ganglion cells rather than those of connective tissue.

The results of the histological examination were confirmed by physiological experiment, the time of the return of the function to the nerve trunks corresponding with the appearances observed under the microscope.—*Bost Med. and Sur. Jour.*

AIDS TO LABOR.

Dr. Spalding in *Detroit Academy of Medicine* in opposing abuse of the forceps remarks:

What other means can be employed to diminish the time of labor, and thereby its suffering? As prominent in efficacy among such means, I would enumerate: 1st. Firm and persistent pressure, made upon the uterine neck *with every pain.* 2d. The application of belladonna to the uterine neck. 3d. The early rupture of the membranes. 4th. The proper use of uterine motor stimulants. 5th. A proper regard for the position of the patient

I am in the habit of regarding a labor as fairly commenced when with uterine pains the uterine neck is dilated to the size of a quarter dollar.

My experience has made me positive, that from this time forward, by the employment of the measures above indicated, the duration of the first stage of labor can be diminished *at least one half.* I would therefore stimulate uterine action by making decided pressure with the finger upon the uterine neck upward under the public arcade, with every pain, which has the effect not only to increase most decidedly the force of the pains, but not unfrequently in cases where there is marked inactivity of the uterus, pains can be excited at will by this procedure. Belladonna also is of undoubted utility in assisting relaxation, and thereby facilitating dilatation of the uterine neck. If belladonna ointment be used to lubricate the finger we secure thereby its continuous effect. If now as soon as the os has become dilated to the size of a half

dollar, the amniotic liquid be evacuated by rupture of the membranes, the uterus will after a few moments of rest, contract with increased force, its previous distention preventing its complete action, just as a bladder is semi-paralyzed by over distention.

Should there exist a degree of uterine inertia calling for farthar stimulation, we may now administer a uterine motor stimulant, perhaps a cup of very strong coffee, which has this effect; even a drink of ice-water will have the effect. Alcoholic stimulation will almost always do it; but undoubtedly the most reliable agents, yet ascertained, are quinine and the old stand-by, secale cornutum or ergot of rye, which I am free to admit, I am in the habit of using. I am aware that there is a strong antipathy in the minds of many against the use of ergot; they claiming that there is danger of lacerating the perineum, and causing still-births as the result of too violent pains produced.

I simply reply that it is no argument against the proper use of morphine, for instance, that while you were endeavoring to overcome an attack of colic it would be possible to give enough to kill your patient. You are supposed to give it in *proper* and *safe* doses, and so with ergot. Squibb's fluid extract of ergot I have found generally reliable, if fresh. If two thirds of a teaspoonful is given it will act in from one-half to three-fourths of an hour; if not it may be safely repeated. My rule is then, give enough to produce the desired effect and then stop.

I mentioned also position of the patient as a point to be looked after, for it will sometimes happen with a patient lying for instance in a twisted position, half upon the back and half upon the side, that rotation of the head in the pelvic concavity will be prevented and the action of the uterus for a long time rendered unavailing, a condition of things which a change of position will rectify at once.

It will be seen that by the employment of the above means we have rendered valuable assistance to our patient *from the very commencement of her labar*, and it is not until now, when the os uteri is fully dilated, that it is possible to render any assistance whatever with the forceps. But the previous and continuous stimulation of the uterus which we have excited will be continued, and unless there be a serious disproportion between the head of the child and the pelvis of the mother the remainder of her labor will be very brief. So that unless adjustment of a malposition is required, or a disproportion exists, or the occurrence of some complication, as convulsions, exhaustion, or hemorrhage, rendering a few minutes valuable, the use of the forceps is unnecessary.

In verification of what I have claimed I may be permitted to state that in the last 100 consecutive cases of confinement, which I have conducted, I have not used the forceps once, although encountering the same variety of cases as are ordinarily considered as justifying the use of the forceps.

Furthermore, the *average time* in which I have been engaged is less than *two* hours, the longest being four hours.

Mr. President—While my own experience has proven to my satisfaction the truth of the principles herein stated, I have laid no particular claim to originality. I have simply attempted to drag up from their dormant slumber a few practical truths, already well known but unused to the extent which they deserve.

Let us not, when dealing with life, death and suffering, allow our fondness for operating to prevent us from giving our patients the benefit of *all* that is known to be practical for the relief of their suffering.

Conservative surgery is the order of the day; we no longer estimate a surgeon's skill by the number of limbs which he has sacrificed, but rather by the number saved. If this is an indication of progress in surgery, how long must we wait for obstetricians to fall into line and cease to pride themselves upon

their increasing ratio of forceps deliveries?—*Detroit Lancet.*

ETHER AND CHOLOFORM IN PUERPERAL CONVULSIONS.

To the Editor of The Medical Record.

SIR:—Supplementary to what I have said in your issue of Sept. 14th on the anæsthetic treatment of puerperal convulsions, I wish to put on record the following testimonials:

Dr. John Crowell, Haverhill Mass., in a letter to me, dated September 13, 1878, says:

"Judging from my own experience, many more patients are saved by anæthesia than by the old methods adopted in my early practice."

Dr. G. W. Garland, Lawrence, Mass., writes that he considers "the anæsthetic treatment as invaluable, and cannot be dispensed with." He has, however, never treated a case without other remedies.

From Dr. Enoch Cross, the oldest physician in Newburyport, now nearing his eighth decade:

"I have had experience in all kinds of treatment of that dire disease. In my earlier years I used to witness disastrous results, but since I have trusted to ether, have had uniform success."

Dr. F. A. Howe, Newberyport: "Full and continious anæsthesia alone can be relied on in urgent cases." Dr. Howe, who has had many cases, trusts mainly to ether, or if he could not obtain ether, would use chloroform. He also uses, as adjuncts, chloral hydrate and the bromides.

Dr. J. A. Douglass, of Amesbury, claims good results from veratum in large doses.

From Dr. Gilman Kimball, of Lowell, letter bearing date Sept. 13th:

"I have seen but one case treated with ether, and that seemed to show its good effect."

Dr. H. J. Cushing, of Merrimac, reports five cases. Two of them were fatal. In one no ether was used, and in the other it does not seem to have been administered preservingly. In the three cases that recovered ether was freely used.

Dr. S. J. Potter, Hamilton, Ohio. Dr. P. is an eclectic of repute in the West. (From a letter dated 14th inst.):

I employ chloroform and ether, of each equal parts, by inhilation, in the treatment of puerperal convulsions, and venesection, too, if the patient be plethoric. Chloroform is as safe as ether, and more prompt. I use these remedies in all cases in the above-mentioned proportions."

Dr. W. H. Kimball, of Andover, Mass. Dr. K. is President of our Essex North Medical Society. (Letter dated the 17th inst.):

"Have chiefly relied on inhilation of ether in treatment of puerperal convulsions for many years. I have more faith in this course than in any other."—*Medical Record.*

BRYONIA AND DRASERA IN THE TREATMENT OF WHOOPING-COUGH.

Dr. Louvet-Lamare. (*L' Annee Medicale*, June, 1878, p. 105.)

The author gives in the first or catarrhal stage of the disease a daily dose of 1 gram of the tincture of bryonia to a child of seven years. The medicine does not abridge this stage, but it very sensibly diminishes the tracheo-bronchitis, which is then the only morbid manifestation; moreover, being bitter, it stimulates the appetite, and does not occasion nausea.

When the characteristic cough occurs, he gives the tincture of drasera in daily doses of 1 gram for a child of seven years, and the frequence and violence of the coughing fits at once diminish. The value of this treatment has been proved in a large number of cases, and also in the fits of coughing, in certain cases of bronchitis, and even in phthisis, though not so marked as in pertussis. But little success has been obtained from it in

coughs caused by laryngitis and laryngo-trachitis.

The dose may be increased by 5 drops or more every second day without danger, as it is not poisonous. The cough diminishes still more, but usually lasts for two or three weeks before convalescence. If, on the contrary it be given to a child who has had the cough for three weeks or so, one may expect to *cure the worst cases in a few days* From a large number of cases thus treated, the author concludes that the disease may be shortened to at least one half the time required by change of air, which is often impossible.—*Chicago Med. Journal.*

TAPPING A VOMICA IN PHTHISIS.

Williams.—(*Br. Med. Jour.*, July 20, 1878.)

A patient aged twenty-eight, had had consumptive disease for six years. A large cavity with pleuritic adhesions had formed at the base of the left lung, besides others in other parts. The cough was harrassing, the expectoration very profuse (nearly a litre every 24 hours,) and very offensive. Microscopical examination showed that lung degeneration was rapidly advancing. At the writer's request, Mr. Erichsen introduced a large-sized trocar and cannula between the seventh and eighth ribs, and withdrew a litre of fœtid pus; the operation being somewhat difficult on account of the toughness of the fibrotic lung. Relief was immediate, all fœtor ceased, both pulse and temperature fell, and the expectoration was reduced to 60-100 C. C. Limited pneumothorax and cutaneous emphysema followed, the latter soon subsiding. Even at the expiration of a month, the discharge was slight. The cavity had several times been washed out with antiseptic fluids.

The operation had previously been done in this country by Dr. Pepper, in England by Dr. Ramadge, in Germany by Dr. Mosler, and by others. The practice is only suited to exceptional cases, such as those of fœtid expectoration. It has been recommended to accomplish the same purpose by catheterisation of the air-passages, by large thoracentesis, by aspiration, by caustic and by galvano-caustic, the latter preferred by Koch of Berlin

A VEHICLE FOR QUININE.

Milk is recommended as a good solvent of quinine and is said to disguise its bitterness. One grain will dissolve in an ounce of milk, and render it scarcely bitter, while two grains do not make it markedly bitter. Further, five grains dissolved in two ounces of milk do not render it very unpleasant, while, put in a tumbler of milk, the bitterness all but disappears. Mr. Palmer, of the Birmingham General Dispensary, uses a solution of quinine in glycerine—one grain to one drachm. A dose of this can be given in a wineglassful of milk. Milk would seem to be a good vehicle in which to give quinine to children, but with regard to solubility it appears strange that so few doctors make use of the neutral sulphate of quinine, which is soluble in water without the addition of acid, and which, therefore offers every facility for administering quinine in a liquid form.—*Lancet & Clinic.*

TREATMENT OF MAMMARY ABSCESS.

Dr. S. W. Gould, of Argosy, Ind., gives, in the *Med. and Sur. Reporter*, his treatment for threatened mammary abscess, under which, for a decade, he has not been obliged to lance a single breast. It consists in the application of chloroform and glycerine, equal parts. As the substances are of unequal weight, the phial containing them should be thoroughly shaken, the mixture quickly applied, and the part covered with oiled silk, or something equally impermeable, to prevent too rapid evaporation. So confident is he of the efficacy of this remedy that, after a ten years' trial of it,

he is led to consider a gathered breast an evidence of professional neglect.--*Detroit Lancet.*

PROCEEDINGS IN FRENCH SOCIETIES.

ACADEMY OF MEDICINE, PARIS.—*Session July* 25, 1888.—M. E. Lancereaux presented a paper which had been read before the International Geographical Congress, 1875, entitled:

Geographical Distribution of Pulmonary Phthisis.—The disease is found in all climates and among all people, but it is not equally destructive everywhere. Relatively rare in polar regions, the disease prevails more especially in temperate climates, and remarkably so in dense populations, and particularly in great industrial centers. It is of common occurrence in the tropics too where its course is very rapid. But these general notices only give a vague idea of cosmical influences in the production of phthisis. In order to arrive at an exact conclusion on the ethnologic l conditions of the disease, he had been obliged to analyse, in a wide sense, climate in its chief elements, temperature, moisture, dryness, altitude, etc., and to take into account the habits, way of living, muscular activity of different communities and tribes, and he had arrived at the following conclusions: cold has no influence in the genesis of tuberculosis; the inhabitants of elevated regions, 800 to 1,000 yards above the level of the sea, are as exempt as those living in polar latitudes. On the contrary those inhabiting low, damp and warm districts are very subject to phthisis. Crowded quarters, poor ventilation, with food unsuited to the climate, excess in alcoholic beverages, and lack of muscular exercise are circumstances which most favor the developement of tnbercle. Savage tribes do not suffer from this disease which decimates the civilized races, hence this conclusion, *that tubercular phthisis is a disease of civilization*, and it is the duty of the State to procure its destruction. To attain this, Doctor Lancereaux demands laws regulating the construction of houses, increased breadth of streets and abundant air space, not only for soldiers in barracks, but for workmen in factories, families in tenement houses, children in schools, students in colleges and all those in the humblest positions.—*Lancet and Clinic.*

CÆSARAEN SECTION AFTER DEATH.

In the Obstetrical Society of Cincinnati, Dr. Cleveland reported a case of Cæsarean section performed, at least, one hour after death of the mother from convulsions, in which the child was saved.

He remarks that "the hypothesis that the woman was in a swoon, thus prolonging the life of the child, will not hold good in this case, for I know the mother was dead. It appears to me, when viability is limited to fifteen minutes or half an hour after maternal death, the well-known capacity of the fetus in resisting asphyxia is not taken fully into account, which, of course, will be increased by the residual oxygen that is in the placenta at the time of death."

OXALATE OF CERIUM AND CAFFEIN AS PREVENTATIVES OF THE NAUSEATING EFFECTS OF OPIUM.

BY SAMUEL C. BUSEY, M. D.

To Professor Da Costa is due the credit of having first suggested the combination of bromide of potassium with morphia to obviate the disagreeable after-effects which so frequently distress patients to whom morphia has been administered. It frequently happens that the potassium salt can not, in consequence of its bulk and unpleasant taste, be employed. Especially is it objectionable when the practititioner prefers to use opium either in the form of pill or powder; nor is its therapeutic effect always desirable.

To meet these objections I have, for

some time past, combined the oxalate of cerium with opium, and have in very many instances found it equally efficatitious in obviating the nausea and mitigating the distressing after-effects. Sir James Simpson introduced the oxiate into use as a very valuable agent in relieving the nausea and v omiting of pregnancy. Since then, its employment has been very widely extended, and it has become quite common to combine it with drugs to secure their tolerance to the stomach.

For along time I have been accustomed to prescribe a strong docoction of coffee, without milk or sugar, in drachm doses administered every fifteen minuees, to relieve the nausea and headache following the employment of opium. Since the introduction of the effervescing citrate of caffein, I have found it a very agreeable and efficient substitute for the less palatable beverage. These agents are, however, only appplicable after the occurrence of the stomachie disturbances. The citrate of caffein, though less efficient than the oxalate of cerium, may be combined with opium. It is madmissible in those cases where opium produces wakefulness instead of drowsiness. I have sometimes fancied that it lessened the soporific, without adecting the analgesic, properties of opium.

It may be that these applications of the drugs are quite common; but if they have been previously published, it has escaped my observation.—*American Practitiononer.*

VINEGAR IN POST PARTUM HEMORRHAGE.

At the American Gynelogical Society Dr. Penrose read a paper on the above subject in which he states:

The remedy for the arrest of post-partum hemorraghe was *common vinegar.* Sincc 1854 he had used it with invarable success. The advantages claimed for it were:

1. That it could be readily obtained;

2. That it could be easily applied, and without special apparatus;

3. That it always cured the hemorrahge, or rather, it had not failed in his practice;

4. That it was sufficiently irritating to excite the most sluggish uterus to contraction, and yet not so irritating as to be subsequently injurious;

5. That it was an admirable antiseptic;

6. That it acted on the lining membrane of the uterus as an astringent.

Dr. Penrose used this remedy in the following manner: saturate a rag with vinegar, carry it into the cavity of the uterus, and squeeze it. In the vast majority of cases the hemorraghe ceased as by magic when the vinegar passed over the survace of the uterus and the vagina. He believed that the salts of iron should seldom or never be used, but in a case, which was supposable, in which the vinegar failed he would resort to that remedy.

Dr. John T. Atlee, of Lancaster, believed the hand and arm were the most ready and efficient remedy at our command for the arrest of post-partum hemorrhage.

Dr. A. H. Smith thought that post-partum hemorrhage was due to one of two causes, either distention or laceration. If the uterus was emptied it would contract, and the hemorrhage would cease. The main point in the treatment, therefore, was not to introduce anything into the cavity of the uterus which would prevent complete contraction. The means which he had employed with greatest success had been injection of hot water; the water should be injected at the same time the clots were turned out, and at a temperature of 110° F.

Dr. Camabell, of Augusta, Georgia thought the idea of irritating the placental surface was valuable and worthy of consideration. He spoke highly of the use of injections of tr. of iodine. He disapproved of the use of the persalts of iron.

Dr. Englemann, of St. Louis, approved of the use of the iron-salts, and

had come to rely upon them in extreme cases.

Dr. Trask, of Astoria, L. I., stated that an analysis of the cases in which iron had been used showed that the benefit which followed was due, not to its styptic, but to its irritant action.

Injections of the tr. of iodine had been his favorite method of treatment.

Dr. Bozeman, of New York, believed that if compression was made over the fundus of the uterus at the same time the hand passed into its cavity to remove the clots, the hemorrhage would almost invariable be arrested.

Dr. J. R. Chadwick, of Boston, thought that a very good remedy in these cases was ether used hypodermically. He had employed it in three cases with the effect of producing prompt tonic contraction.

Dr. baker, of New York, mentioned the hemorrhagic diathesis as one of the predisposing causes, and related a case in illustration. Because of the existence of this diathesis the woman nearly lost her life, notwithstanding the most vigorous prophylactic treatment. With reference to treatment of this form of hemorrhage he would, if possible, avoid introducing the hand into the cavity of the uterus, because of the liability to do injury by such procedure.

Dr. Wilson thought injury to the uterus was not likely to follow introduction of the hand when all the parts were relaxed. He had never used the persalts of iron and did not approve of their use. His hand was the therapeutical agent upon which he relied most, and he had never met with any injuries from its use that confirmed Dr. Baker's fears.

Arsenic and its Preparations in the Treatment of Skin Diseases.—Molinari, in an article on this subject (Gaz. Med. Ital:-Lomb., March 1877; Four. des Sci. Med., 1878, p. 100), concludes as follows: 1. Arsenical preparations should be administered at first in small doses, which are to be increased gradually, their effect being carefully watched. At the first sign of disturbance, as loss of appetite, pain in stomach, dryness of the mouth, swelling of the eyes or nose, or difficulty in urination, the medicine should be suspended, but renewed again when these disappear. 2. A saline purgative, as sulphate of sodium, should be taken before the beginning of the treatment, and at its close. 3. Arsenic should not be given after, but before, meals: it is better tolerated under these circumstances, and is more quickly absorbed. Acids should not be taken by the patient, and alcoholic drinks only rarely. The treatment should last from one month to six weeks. 4. External means, as ointments, etc., should be added to the arsenical treatment. 5. In eczematous affections, where the kidneys are involved, some diuretic, as the acetate of potassium, may be added to the arsenic, but uot substituted for it.

Chronic chills.—Dr. Hervey (in *Lancet & Clinic*) suggests the following as a successful treatment to prevent or break up the chill habit in chronic cases:

R. Equal parts of tincture iodine, tincture ferri chloridi., and tinct. sanguinaræ; of this I give from fifteen to thirty drops after each meal.

With this one grain of quinine is given before each meal for the time specified above, ten days after the chills have been broken or other paroxysms arrested. Then I continue the iodine for ten, fifteen, or thirty days longer, until all enlargement of the spleen is removed. I have been treating intermittent fever after this plan, for fully thirty years.

Dr. Kessler (in *Brief*) says:

Living in a malarial district, I am compelled to use all the different remedies at my command; but for simple intermittent fevers, I have never yet failed to get satisfactory results from the following, for a child 5 to 8 years old:

R.	Sul. cinchonidia	30 grains.
	Tinc. ferri. chl	30 drops.
	Aqua distil	1 ounce.
	Tinc. nux. vom	10 drops.
	Podophyllin	2 grains.
	Syr. simp. q. s. fiat	4 ounces.

M. S. Teaspoonful four times a day; increase dose for older persons.

Practical Notes and Formulae.

FELONS.

A writer in *Physio Medical Journal* says: for felons in the palm of the hand. I prepare a compound as follows :

R Lobelia Sem.....dr jj.
Cypripedium.
Ginger .....aa dr j.
Capsicum.....dr ss.
Ulmus F.....dr iv.
Powdered and mixed.

First bathe the hand in good strong lye, as hot as can be borne, for five or ten minutes; then apply a hot poultice made of the above compound and mixed to a proper consistence with the lye, wetting the poultice every hour with a few drops of the strong tincture of lobelia seed. Change the poultice morning, noon and night, and each time before applying the new poultice bathe well the affected parts as at first in hot lye. One heaping teaspoonful of the above compound is sufficient for each poultice and the use of the tincture of lobelia for twenty-four or thirty-six hours will also be sufficient. After the first few hours there is comparatively but little pain, the difficulty rapidly terminates leaving no stiffened or crippled hands or fingers. This is my experience gathered from the treatment of many cases. After the sack loosens and is extracted, then heal with some good healer.

Smartweed.—The smartweed, "Polygonum Punctatum," P. hydropiperoide, is a common weed, well known as a domestic remedy; but its true place in the rapeutics is but little known or valued. In dysentery, watery and mucous diarrœha, few agents have proven of more value. The dry plant yields about eighteen per cent. tannin. What its other proximal principles are I do not know. I prepare a saturated tincture. As an anti-pyretic in typhomalarial and our bilious remittent fevers, it has few eqauls. With it the tempature may, in a few hours, be brought down from 102°, or even 104°, to 98°, and at the same time it is valuable as an anti-periodic. It is an active stimulant, and combined with some of the salts of the cinchona, one-half the ordinary dose of the latter will have a better effect than a full dose uncombined.

When taking polygonum, the patient feels it to be a stimulant, and will say, "that medicine warms me all over, I feel it to the tips of my fingers." In dysenentery, when there is tormina and tenesmus, I give from m. xx to dr. i in mucilaginous drinks every hour or two, as occasion demands; and when the discharges are so frequent as to prostate and cause loss of sleep, an enema of polygon., gr i in an ounce of cold water, after each dejection, will calm and still the bowels in a short time. In hæmorrhage of the bowels, no drug within my knowledge given by the mouth and an enema will so soon check it. I think it has no, or but little, influence in reducing the rates of the pulse. I use it in all forms of bowel complaints, particularly in the diarrhœa of typhoid fevers. It acts as a diaphoretic and mild diuretic.

For the watery diarrhœa for children I use—

R Tinct. Polygon..... .....dr i.
Tr. rhœi comp
Tinct. zinziber.....aa dr. iv.
Tr. camphor.....dr· ij.
Syr. anise .....dr. vi.
Sodæ bicarb.....dr. i.

Sig:—From half to a teaspoonful, according to good judgment. This formula having no opium in it is a safe domestic remedy.

Glycerite of the Hypophosite of Zinc.

Dr. Polk in The Druggists Circular says: About eighteen months ago I wished to use hypophosphite of zinc in a very obstinate case of chorea, and failing to obtain it from any of the manufacturing chemists I improvised the following formula :

R Sol. hypophosphorous acid (50 per cent. terhydrated).....oz. iv.
Zinci corbonatis..... ..... q. s.
Aquæ..... ..... q. s.
Glycerine (C. P.).....q. s. ad fl. oz xvj.

Rub the zinc to a paste with water, add to the hypophosphorous acid nearly to saturation, filter and add the glycerine to the required amount.

Of this glycerite I administered ten drops thrice daily in water to a girl thirteen years of age, curing the case of chorea which had defied all other treatment. The rapid improvement in the general health (which yet remains excellent) in this case induced me to use it in one of hysteria with satisfactory results. I am confident it will be found superior to all other zinc preperations in nervous dieases.

ANTIDOTE TO CARBOLIC ACID.

The Pharmaceutishe Zeitung fur Russland says that on the recommendation of Professor Baumon, Dr. Sanftleben has used sulphuric acid in several cases of poisoning by carbolic acid with the best success, the phenol combining with the acid to form phenyl-sulphuric acid, which is not poisonous. He administered it in a mixture composed of dilute sulphuric acid 10.0, mucilage of gum 200.0, and a simple syrup 30.0 grams, in doses of a tablespoonful every hour.

IODINE IN INTERMITTENTS.

Dr. Schell, in Cin. *Lancet*, claims good success with this remedy, used as ollows:

R. Tinct. Iodii.....gtt. 60.
Iodide Potassa.....grs. x.
Syr. Simplex,.....ozj. M.

Sig. One teaspoonful half hour after each meal.

After a careful study of the pathology of intermittent fever and the action of iodine in the system, it seems to me that it is a remedy that a great amount of good may be expected from in malarial diseases.

Common Salt as a Remedy for Intermittent Fever.—Dr. Brokes recommends for periodic fevers a very simple method of treatment, the efficacy of which he has often demonstrated in his travels in America and Hungary. He takes a good handful of table salt and roasts it in a clean, and, if possible, new, pan over a gentle fire, until it assumes a brown color, like that of roasted coffee. When the patient is a vigorous adult, a good tablespoonful of this salt should be desolved in a glass of warm water, and the whole swallowed at a dose. When the fever recurs at intervals of two, three or four days, the remedy should be taken fasting on the morning after the day of the paroxysm. When the thirst excited by the salt becomes insupportable, a little water may be allowed to the patient, but it should be sucked through a straw. For forty-eight hours after the remedy has been taken no food should be allowed, except some beef or chicken soup; it is particularly necessary to observe a strict diet and to avoid chilling of the body during this period. Dr. Brokes asserts that he has employed this method of treatment for eighteen years, and invariably with success.—*Gazette des Hopitauex.*

Perfumed Carbolic Acid.

Carbolic acid.....	1 part.
Oil lemon.....	3 parts
Alcohol at 36°.....100	parts

The oil of lemon completely masks the disagreeble order of the acid, without at all interfering with its properties. The above was long a secret preperation,

known as Lebon's Perfumed Carbolic Acid

Antidote to Arsenic.—It has been noted by Rouyer that freshly precipitated sesquihydrate of iron, although an antidote for arsenious acid (arsenic of the shops), fails entirely to counteract the action of arseniate of soda or arsenite of potassa (Fowler's solution), but that a mixture of a solution of the sesquichloride of iron and the oxide of magnesium will counteract the effect of these salts, as well as the arsenious acid itself, and hence this mixture is always to be preferred to the hydrate in cases of poisoning by arsenic. The official solution of the sesquichloride of iron should first be administered, and afterwards the magnesia. In one hour after the administration of the antidote, a cathartic should be given. In all cases acid drinks (such as lemonade) are to be avoided, since the compounds they form are soluble.—*New Remedies.*

Chlorodyne (*G. H. F. Toledo, Ohio.*)—The formula which is supposed to approach nearest to the original preparation of Dr. J. Collis Brown is that given by Squire in his companion to the Brit. Pharm. (11th ed., p. 96) This is as follows:

Chloroform	fl. oz. 4.
Ether	fl. oz 1.
Alcohol	fl. oz. 4.
Molasses	fl. oz. 4.
Extract of licorice	fl. oz. 2½.
Morphia hydrochlorate	gr. 8.
Oil peppermint	m.16
Hydrocyanic acid (2 per cent)	fl oz. 2
Syrup	fl.oz . 17½

Dissolve the morphia salt and the oil of pepermint in the alcohol; mix the chloform and either with this solution; dissolve the extract of licorice in the syrup and add the molasses; shake these two solutions together and add the hydrocyanic acid.

We would reccommeud to use only purified extract of licorice, of soft consistency and entirely soluble, to make this preparation, as the amount of deposit will thereby be considerably reduced. There have been a great many formulæ of this preparation published. We have about eighteen different ones on file; but as we ourselves prefer that given above, we do not wish to induce others to make use of different ones.

Postage-Stamp Mucilage (*Hawkins Tex.*) The composition of this is *said* to be:

Dextrin	2 parts.
Acetic acid	1 part.
Water	5 parts.

Dissolve in a water-bath and add

Alchohol	1 part;—

but we are informed that another mixture is used at present. We will endeavor to learn its composition.—*New Remedies.*

TO REMOVE FOREIGN BODIES FROM THE NOSE.

Dr. John Winslow, of Ithaca, New York, sends us the following directions to be pursued in this emergency: "Close the empty nostril by pressure with your finger, and blow suddenly and forcibly into the child's mouth. The bean or button commonly flies out at the first effort; if not, a repetition is pretty sure to expel it."—*New Remedies.*

PULVIS PAREGORICUS.

(O. H. N. Y.)—This powder has once been used as a solid substitute for tinctura opii camphorata, and was originally proposed by Vogler. Its composition was: Starch, 80 grs.; mastic, 40 grs.; powdered opium 2 grs. The dose ranged from 5 to 30 grains.

TONIC IN ANÆMIA.

R	Tinct. ferri chloridi	f. dr. iij.
	Potassii chloratis	dr. i·
	Solut. strychniæ sulph. (gr. i. ad f. oz. i.)	f. dr. ij.
	Syrupi simplicis	f. dr. iv.
	Aquæ puræ q. s. ad	f. dr. iv.

M. Sig. Two teaspoonfuls, three times, daily, as a tonic in anæmia.—*Dr. D. S. Brainard.*

Scientific Items.

PHOTOGRAPHING WITH LIGHTNING.

[From The Southern Medical Record.]

Mr. A. J. Jarmin communicates to the *Photographic News* an account of experiments made to take negatives during a thunder storm. He sensitized a plate in the usual way and placed it at the back of a negative. Four flashes of lightning were counted, and, upon developing, the image came out as clear and quick as if taken by ordinary daylight. One flash with a weak negative gave a fair transparency. He next tried with the camera. After getting everything nicely in focus, through his studio window, which was done by the aid of lightning, he obtained a photograph with twenty flashes, the view being down a street. The experiment proves that the chemical process of ligntning is equal to the electric light produced artificially and nearly eaqual to daylight. Photographs of the electric spark itself have been tataken by aid of a Ruhmkorff coil. We are the fortunate possessor of several stereoscopic photograps of such Ruhmkorff spark flashes, which are very instructive to look at and study details, because while the spark itself lasts only a very small fraction of a second, the stereoscopic photograph of the same, being of course permanent, admits of careful and prolonged inspection.

THE MOON.

A large crater or cavity not heretofore observed, has been discovered in the moon, giving evidence of violent activity, on its surface. Interesting phothographic views have also been taken, which when compared with a phothographic view of the face of Mount Vissuvius bears a resemblance so striking as to leave no doubt of a like volcanic condition, either extinct or active, upon the face of our satelite.

An Electric Awakener.—Mr. F. Peppard is the inventor of a curious contrivance for awakening a sleeper at any required hour The apparatus is to be fixed on an ordinary clock; it is so arranged that when the hour-hand of the clock touches a button an electric circuit is completed; the minute-hand passes over the button without effect. There are a series of holes for the different hours, into any one of which the button can be pushed, according to the time selected for awakening. The completion of the electric circuit may ring a bell, or sound any other of the ordinary methods of alarm. But this contrivance has a yet more effective method for arousing a deaf man or any sleeper who is willing beforehand to prepare himself for a shock. A bracelet is provided which can be put on the wrist at the same time of retireing; to this flexible wires are attached, and the electric discharge will pass through it at the appointed hour.—*Journal of Chemistry.*

THE POLYMICROSCOPE.

A recent number of *Nature* states that "a new improvement in the microscope is reported from Germany. Herr I, von Lenhossek has constructed an apparatus which permits no less than sixty microscopical preparations being observed in immediate succession, without the trouble of changing the slides and readjustment of the object-glass. Its construction is similar in principle to that of the well-known revolving sterescopes, and the inventor has given the new apparatus the name of "polymicroscope."—*Pacific Med. and Sur. Jour.*

Editorial and Miscellaneous.

☞All communications relating to the business of THE RECORD for the years 1877 and 1878, must be addressed DR. R. C. WORD, Managing Editor Southern Medical Record, Atlanta, Ga.

☞Brief and practical communications are solicited on all subjects pertaining to medicine; also reports of cases in practice.

☞Send money by check, postal order or registered letter.

☞Write your name, post-office, county and State plainly.

CINCHONIA ALKALOID.

Is it true that Cinchonia can be relied upon as a substitute for the sulphate of Quinia? The increasing scarcity and high price of the latter article gives importance to this inquiry, especially at the present time. We have before had occasion to refer to this subject, and gave the result of experiments with this article, highly favorable to its efficacy as a tonic and antiperiodic.

In our March number, page 90, a medical gentleman to whom we handed a sample, sent us by Messrs Powers & Wightman, tested the remedy with satisfactory results in two cases of malarial fever, and also relieved with it a case of obstinate menorrhagia, which it cured by its tonic property, and its power of stimulating the capillaries and equilizing the circulation. The preparation used was that lately introduced by Messrs Powers & Wightman, of cinchonia combined with sugar of milk and the bicarb of soda. It was found that thus combined the cinchonia is not only antiperiodic but anodyne in n its effects upon the nervous system.

The same Practitioner informs me that he has subsequently used the cinchonia uncombined in intermittent fevers with uniform success.

We have been using the cinchonia of late in lieu of the sulphate of quinia and find it equally efficient as a tonic and antiperiodic. It is almost tasteless and may be readily administered to children. We have not observed any unpleasant effect upon the ears or tendency to nausea. Dr. T. S. Powell—senior editor of this journal—has used the cinchonia with good success in intermittents, and has found it to be useful in solution with an excess of the aromatic sulphuric acid in menorrhagia, particularly in analmic and relaxed habits. A favorite formula with him in menorrhagia is the following:

R. Cinchonia.....grs. xxv
Simple Elixir..... oziv
Aromatic Sulphuric acid..... driij
F ext. ergot..... driij

Dose, one teaspoonful three to four times a day. In the absence of the simple elixir water may be used and a little sugar or syrup added.

A medical gentleman of Dekalb county, Ga., informs us that he has used the cinchonia for several years in doses a little larger than those of the sulphate of quinine and has found it equally efficient in the treatment of fevers. We have similar information from another practitioner who has sent us a communication on the subject which we expect to publish in our next.

The drug is certainly much more pleasant to the taste than the sulphate of quinine and being much cheaper it would seem that it ought to come into general use.

MARTYRED PHYSICIANS.

Those physicians who have nobly remained at their post to battle with the yellow fever scourge, and those who have volunteered from a distance to visit the yellow fever districts, may well be styled martyrs to science and to humanity. We have gathered from our exchanges the following list of names who have fallen victims to the disease. Honor to their memory and peace to their souls! W.

PORT GIBSON; Dr. W. D. Spratt.
GRAND JUNCTION; Dr. J. H. Prewitt.
AUSTIN, Texas; Dr. Manning.
MEMPHIS; Dr. F. Sarner, Dr. Hopson, Dr. K. L. Watson, Dr. L. R. Laske, Dr. W. R. Hodges, Dr. S. M. Dickinson, Dr. R. B. Williams, Dr. Mead, volunteer from Ky., Dr. J. B. Woodward, Dr. McGregor, Dr. T. L. Bond, vol., Dr. Menees, vol., Dr. J. Runner, of Ind., Dr. John Erskine, Dr. J. E. Penn, Dr. J. B. Hicks, Dr. J. S. Bankson, Dr. E. A. Cheeves, Dr. Paul Otey, Dr. E. T. Easley, vol., Dr. J. M. S. White, vol., Dr. W. K. Lowry, Dr. E. P. White, Dr. J. F. Sample, Dr. Force, volunteer, Dr. B. W. Avant.
VICKSBURG.—Dr. Glass, Dr. Booth, Dr. P. F. Whitehead, Dr. Potts, Dr. Bichfeldt, Dr. Fisher, Dr. Hoppoldt.
NEW ORLEANS.—Dr. B. A. Bobo, Dr. J. G. Byrne, Dr. Herndon.
CANTON, MISS.—Dr. N. McGee, Dr. M. J. McKee, Dr. A. F. Cage.
HOLLY SPRINGS.—Dr. F. M. Tennell.
CHATTANOOGA.—Dr. E. N. Baird, Dr. R. N. Barr.

True Bravery.—A few weeks ago the Medico-Chirurgical Society of Atlanta, appointed a committee of three of its members to visit the city of Chattanooga for the purpose of examining the fever prevailing at that point, and to report to the society their views of its true character. The committee appointed consisted of Drs. J. J. Knott, A. R. Alley, and Dr. H. B. Lee.

They accordingly visited the city, and conferred with the medical gentlemen of the place, who kindly and courteously exhibited their cases to the committee.

Their observations resulted in the decision that the disease was genuine yellow fever, which they reported upon their return, and subsequently tendered their services, if needed, to the afflicted city.

In a few days the fever cases having increased the call for help was made, and was promptly responded to by Drs. Knott, Lee and Olmstead, who went to the afflicted city, established a hospital, called the *Atlanta Hospital*, and supported by the sympathizing citizens of Atlanta, and which is doing successful and noble work in behalf of many yellow fever sufferers.

These brethren of the profession and members of the Medico-chirugical Society have voluntarily engaged in this noble and philanthropic work, and they should have an appreciative commendation, so also all those resident practitioners who have bravely stood at their post and battled with the scourge. As mind is infinitly superior to matter, so is moral heroism to mere physical courage. The demonstrations of the one can elicit shouts of applause from the rabble, but the other is a sublimated essence of the soul approaching the divine, and which angelic spectators look down upon with glad approval. These brethren like many others during this fearful trial of our sorely scourged Southern cities, have with true bravery stepped out from the almost impregnable fortress of a healthful locality to face the deadly missiles of the epidemic that are falling thick and fast upon the flower-scented breezes of these potions of our southern land. Instead of a shower of bullets from an enemy's rank drawn up in position on the battle field, they are in the midst of a rain of death more fearful from its being invisible in its descent upon its victims; who per force, are powerless to elude its noiseless and insidious approaches.

We trust that a kind Providence will bless the noble and heroic action of these Brethren who have gone from our city and other cities; that they will be shielded from the fatal darts of the plague, and under God be eminently successful in restoring many of the afflicted sufferers to health and to their friends.

If upon the fall of the last victim of this epidemic an angelic messenger should visit the earth and, hovering over our stricken cities, call the roll of the heroes who had bravely fought this fearful scourge since its first appearance many names that men "would not willingly let die though their owners were still in life might respond to the summons."

But the grand self immolated host lying in the dreamless sleep that has no waking, who could answer to their names? Who but the heavenly recorder of men's good deeds and earth's martyred legions. Their names can never be trumpeted to earth by fame, but they are written upon the celestial arches, and when the roll-call of the Eternal City resounds within its jeweled walls no voice will then respond "unknown."

P.

ELEMENTARY QUANTITATIVE ANALYLIS, by Alexander Classen, Professor in the Royal Polytechnic School Aixlachapelle. Translated with additions, by Edgar F. Smith A. M., Ph. D. Assistant in Anolytical Chemestry, etc., in University of Pensylvania, with thirty-six illustrations. Henry C. Lea 1878.

The above work is used as a text-book in the leading laboratories, and polytechnic schools in Germany, and presents to the student of Chemestry, a compact and highly useful manual of quantitative anslysis.

BERBERIS AQUIFOLIUM.

A sample of the above remedy, kindly sent us by Messrs Park, Davis & Co. *Manufacturing chemist* at Detroit, has been tested, in an old and obstinate case of scrofula in a little girl, with very satisfactory results. The properties of this drug we mentioned in advertisement on first inside cover of our Journal.

THE ANTAGONISM OF THERAPEUTIC AGENTS, AND WHAT IT TEACHES. The essay to which was awarded the Fothergillian Gold Medal of the Medical Society of London for 1878, by J. William Fothergill M D. Edinburg, Member Royal College of Physicians of Londo1 etc. *Henry C. Lea, Phil.* A neat little work of 157 pages containg many practical hints for the practioner.

THE PHYSICIANS VISITING LIST FOR 1878. Twenty-eighth year of its publication, Philadelphia. Lindsay & Blakiston—Sizes from 25 to 100 patients, and prices varying from $1.00 to $3.00. A work of great usefulness and convenience to the practioner.

YELLOW FEVER.

The paper on the above topic, in the present issue of the RECORD, by Dr. Greene, of Macon, Ga., presents new and interesting points. It transcends the length usually allowed for our journal, but we give it a place by reason of the great interest in the subject of yellow fever at the present time, and in the hope that the views of the writer may be realized as to the virtues of the Alum and Iron Mass in this awful disease. The fatality of the affection is certainly dreadful, and we think that any and everything promising any good in its treatment should be made known to the profession, and a test be made of its virtues. For like reasons we give place to Dr. Greenley's article.

ALOE & HERNSTEIN. This splended establishment, Importers and Manufactures of surgical instruments; trusses, supports, braces etc. etc., renew thier advertisement in the Record as may be seen on coloured pages

Their improved Physicians Saddle Bags have met with great favor to our knowledge. We cordially recommend this firm to the patronage of our readers.

LIBERAL OFFERS.

New subscribers for the year 1879 may commence with the forthcoming November or December numbers.

Any one sending us two new subscribers and $4 for 1879 will be furnished a copy of Leonard's Physician's Day Book; or Lindsay & Blakeston's Visiting List for 1879.

PHARMACEUTICAL ASSOCIATION.

The meeting of American Pharmaceutical Ashus been postponed to the 26th of November. It will convene in Atlanta Georgia.

A very full attendance is anticipated. Ample arrangements, we learn, will be made for the reception of the members.

APOLOGETIC.

A portion of our September issue was improperly put together in the binding—a fact not discovered until quite a number had been mailed, and it is feared a few of the faulty ones among them. If so, those who recieved them can easily remedy the matter by clipping the stitches, and properly arranging the pages; or if they will send them back to us we will make the correction.

We regret these mistakes, but they will occur occasionally in all kinds of business; and we trust our friends will make due allowance. If they knew the difficulties encountered in Southern Publishing Houses we are sure they would not only excuse but sympathize with us.

Notwithstanding the obsticles to Journalism in the South we have the satisfaction to state that our Journal is improving; extending its circulation and becoming more and more the favorite of the busy practitioner.

Some delay in the issue of the present number has been caused by the unusual press of work in our Publishing House, by reason of the Fair and Rex carnival.

MILK DIET IN THE PUERPERAL STATE.

Dr. S. G. Hardman writes—

HARMONY GROVE, GA., Oct. 4th, 1878.

Editor Southern Med. Record:

As I find some yet in darkness on the subject of sweet milk in the puerperal state, I would be glad to have you notice this in your most excellent Journal. Whether milk is or is not a proper diet for a woman in the puerperal state.

We do not believe that there is any special reason for the rejection of milk from the list of dietetic articles allowed the puerperal woman. It is usual and best in early child-bed, say for the first six or eight days, to rely upon toast, broths, tea and such articles of food as are light and unirritating, by reason of the feverish tendency usual to this condition. Milk is a rich article of diet, and has been found frequently to disagree with adult stomachs, tending to constipation and flatulence, for which reason we have been accustomed to exclude it, and not because we believe there exists any special physiological contra-indication to its use in the puerperal state.—[Ed. Rec.

SURG. GEN'L'S FEVER CIRCULAR.—Surgeon-General Woodworth has issued a circular to physicians and others residing at points visited by yellow fever, annoucing the organization of the Commission to gather and record facts relative to the commencement and spread of the epidemic, and asking the cordial co-operation of all who have facts to communicate upon that subject. A preliminary report of the facts gathered up to the 19th proximo will be presented to the American Public Health Association, which will convene in Richmond on that date to discuss the report.

RECEIPTED.—Drs. J B. Smith 6 months, J. T. Sego, E. A. Anderson, H. S. Sutherland, R. H. Coleman, W. S. Sims, J. W. Heacock, J. W. Price, John Coston, H, M. Talley. J. N. Siddons, L. B. Creath, S. M. Wood, J. H, Calfee, H. T. Shiell, T. T. Key.

NOTICE.

Parties in arears will please remit their subscriptions.